

The Development of Quality Management System in Compliance Audit of Construction Contract Agreement

Dhita Susriana, Yusuf Latief
Universitas Indonesia, Faculty of Engineering

Keywords: Audit, construction, compliance audit, quality management system.

Abstract: Construction projects funded by the government are usually audited by an independent auditor. Audit functions to increase transparency, accountability, and to know the actual conditions of an entity as a basis for making decisions and reducing the risk of errors in policy making for the entity being audited. One type of audit is a compliance audit. The purpose of the compliance audit is to assess whether the principal matters audited are compliant with the regulations. Compliance audit in the construction industry is to assess the implementation of contract agreement between users and the providers, but the auditor is faced with the risk of the possibility that the Auditor's findings, conclusions or recommendations are incorrect or incomplete, as a result of factors such as insufficient or inappropriate evidence, or misleading information which will cause a lawsuit. The method used is the study of literature and the Delphi method. This study aims to develop a quality management system of compliance audit phases in order to achieve the expected quality objectives. The results of this study indicate that the audit phases and quality objectives can be categorized into three phases, namely planning, executing, and reporting.

1 INTRODUCTION

An auditor who performs audit duties is required to be professional and careful in carrying out their duties and authorities. The risks in the form of rebuttal in the audit process up to a lawsuit after the issuance of reports both civilly through the district court, as well as state administration in the State administrative court are still likely to occur as one manifestation of stakeholder dissatisfaction with the results of the audit. If the rebuttal or claim is proven, the impact will be very detrimental and lead to a decrease in the credibility of the audit institution in conducting an audit.

Furthermore, the conflict of interest may occur after the audit result issued through an audit report made by the Supreme Audit Board. If there is dissatisfaction with the audit results, which is stated in the audit report, then the client can submit a lawsuit. Some of the problems mentioned above are caused by the lack of understanding of the audit results between the auditor and the entity being audited. This is because there is a risk of the possibility that the auditor's findings, conclusions, and/ or recommendations are incorrect or incomplete,

as a result of factors such as insufficient or inappropriate evidence, inadequate audit procedures, or deliberate negligence and misleading information (*Standar Pemeriksaan Keuangan Negara*, 2017) and the possibility of audit weaknesses at the planning stage, executing stage or reporting stage.

According to Sarwoko and Agoes (2014) audit quality is influenced by several things including auditor independence and audit procedures designed to detect fraud. To achieve good audit quality, organizations also need to implement a Quality Management System (QMS) to help improve the results of their activities and to provide a solid basis for sustainable development. Therefore this research is needed for the purpose of developing quality management system of compliance audit phases in order to obtain the expected quality objectives.

2 LITERATURE REVIEW

ISO 9001: 2015 states that in a quality management system, an organization must set its quality targets in each process or stage needed. The organization must

determine the characteristics, roles, activities, and work schedules of each of the resources needed, and evaluate the results of the activities of these resources. By building an organizational structure equipped with resources and regulating procedures with the principle of quality in carrying out an activity, it means that an organization has implemented management functions with a quality system.

2.1 Auditor Organization

Based on The Audit Board of the Republic of Indonesia Regulation (Badan Pemeriksa Keuangan) No. 1/2017, audits are processes of problem identification, analysis and evaluation conducted independently, objectively, and professionally based on audit standards, to assess the correctness, accuracy, credibility and reliability of information regarding the management and responsibility of state finances. The *Pedoman Manajemen Pemeriksaan* (2015) contains the management of the audit process, which starts from the planning phase, executing phase up to reporting the results of the audit.

Audit planning is the beginning of the audit process. Audit planning is needed so that audit process can be carried out efficiently, effectively, and in accordance with audit policies, audit activity plans, and audit standards set by the Badan Pemeriksa Keuangan (BPK). Audit executing is a realization of audit planning. Meanwhile, audit reporting is the process of preparing a report based on the results of the analysis of the audit findings obtained during the audit process.

At the planning phase, the Team Leader (KT) is responsible for evaluating whether procedures designed by the Expert will meet the results desired by the Team Member (AT). At the executing phase, AT is in charge of implementing the audit program and documenting it, the KT ensuring that all audit procedures in the Audit Program have been carried out, the Technical Controller (PT) is responsible through the weekly report, reviewing that the audit procedures that cannot be carried out have been supported by adequate justification and analysis and reviewing procedures. At the reporting phase, the Quality Controller (PM) is responsible for reviewing the proposed development of additional procedures.

2.2 Organizational Influence on Quality

According to Priede (2012), companies can increase their competitiveness through the implementation of Quality management systems (QMS). The

implementation of QMS in managing organizational strategies can help the organization to achieve its goals and objectives. To maintain the quality system, the organization needs to document the procedures, the resources with their responsibilities and activities that they must do in the organization. The document must be accessible to all parties who need it and at any time can be updated and the update can be socialized easily and clearly (Zhao Z. *et al.*, 2014). Thus, quality management is a way to regulate and involve all part of the organization in achieving quality requirements, related to employee and customer satisfaction. The implementation of QMS in organizations defines the quality of services provided by the organization, and it leads to customer trust.

2.3 Business Process of Audit

Dye & Stapenhurst (1998) on his journal, stated that auditing is considered as one of the eight pillars of the national integrity system, which can protect against corruption (Jeppesen, 2017). Audit planning is carried out by the auditor so that the audit activities do not cost a lot, can collect sufficient evidence, and also can avoid misunderstanding the contract of cooperation with the client. Hall (2011) divides the audit planning phase into three stages, namely (1) reviewing the organizational structure and policies; (2) reviewing general control of the organization along with its control devices; and (3) testing of control plans and substantive testing procedures. The control testing phase has the following stages: (1) implementation of the control test, (2) evaluating the test results, and (3) determining the level of control. The substantive testing phase has the following stages: (1) the implementation of substantive testing, (2) evaluating the results of the auditor's report, and (3) making an audit report (Chou, 2015).

There are many parties who benefit from the audit, not only in the private sector but also in the public sector. Stakeholders such as fund lenders, owners, employees, suppliers, or community groups with particular interests benefit from audits of related organizations (Hay & Cordery, 2018). Another thing that needs to be considered in conducting audits is collecting audit evidence. In conducting audits, audit evidence is an important matter to note. In International Standard Audit (ISA) stated that the adequacy of audit evidence as a "measure of the quantity of audit evidence." The ISA also states that the suitability of audit evidence is "a measure of the quality of audit evidence." The auditor can obtain audit evidence and directly test the completeness and

accuracy of the data while performing the main inspection procedures that use the data.

2.4 Audits on Engineering

In the public sector and private sectors, both of them conducted audits on the result of construction projects that carried out by independent auditors. The purpose is not only to assess the accuracy of financial management activities on the project but also provide benefits in assessing project performance and comparing the project with best practices on other similar projects for quality improvement. Morrill, Cameron and Morril, Janet (2003) share some external audit activities that are also used in internal audits into four stages: planning of the audit; testing of the internal control system; substantive testing and analytical review.

Mashwama, N. *et al.* (2017) revealed that in order to eliminate the poor quality of construction projects in Swaziland, organizations could implement a quality management system and determine the key of success factors. In monitoring stage, success factors that influence the reductions of cost of poor quality are fulfilling health and safety requirements; measurement of executed works; measurement of wastage and reworks; testing of executed works Measure Variation in planned and actual resource utilization.

Nikulina, M.E. *et al.* (2017) developed audit methods into 6 (six) main stages, are: planning; collecting the audit evidence; make report and auditor's conclusion (Bogdanova, N.A. *et al.*, 2009); arrange program of works; record all the field inspections, laboratory results and the analysis; the development of corrective actions and operability analysis of data obtained. The type of operations depends on the scope of activities (Nikulina, M.E. *et al.*, 2017).

Didkovskaya, O. *et al.* (2016) stated that conducting a construction audit requires the integration of technical experts, legal experts, and financial experts to evaluate the optimization of investment in a construction project. The construction audit is needed to assess project investment and project construction. Some actions taken in the construction audit are analysis the initial document; analysis project documents; assess conformity with specifications; assess the supervision of construction by the organization; analysis construction deadlines; analysis the realization of the project budget; monitor investment and expenditure, etc.

3 METHOD OF COMPLIANCE AUDIT OF CONSTRUCTION CONTRACT AGREEMENT

The methodology of this research is the study of literature validated through the Delphi method. Literature studies are used to reveal various theories that are relevant to the problems being faced or examined as reference material in the discussion of the results of the study. Literature studies will be conducted on several regulations, similar research reports, audit journals, and guidance on auditing infrastructures such as roads or other infrastructure. Validity is carried out using the Delphi method to several experts who participated in formulating the BPK audit guidelines and to experts who involved technically in infrastructure audit.

In a book entitled *The Basics of IT Audit* (2014) is explained that one type of audit is a compliance audit. Compliance audits consist of various series of an audit conducted by external and internal auditors in order to fulfill legal requirements or organizational regulations, industry standards, licensing requirements, contract commitments, or other formal obligations. There are 3 (three) types of compliance audits, namely legal compliance; compliance with industry standards; and commercial standards.

Whereas according to the *Standar Pemeriksaan Keuangan Negara* (2017), compliance audit is to assess whether the subject matter being audited is compliant with the provisions of the legislation. In accordance with the *Petunjuk Pelaksanaan Kepatuhan* (2018), compliance audit aims to provide information to users of the results reports on the compliance of the entity being audited in complying with the provisions of the legislation, legislative decisions, contracts, and established codes of ethics.

Compliance audit for the implementation of contract agreement for the construction of State Building refers to Presidential Regulation No. 16/2018 concerning procurement of government. It has been regulated in more detail regarding the executing phases of the construction contract agreement, as follows:

1. Letter of Appointment of Government Goods/ Services Providers;
2. Signing of the Contract;
3. Provision of advances;
4. Payment of work performance;
5. Change of Contract;
6. Price adjustment;

7. Termination of Contract or End of Contract;
8. Termination of Contract;
9. Project handover; and
10. Handling the force condition.

4 RESULT AND DISCUSSION

Based on the discussions result with several experts on each audit stages, a form of audit phases can be obtained which can be carried out in the

Table 1: Audit Phase

No.	Audit Phase	Quality Objectives	Responsible (R), Accountable (A), Consult (C) and Informed (I)			
			PM	PT	KT	AT
1.	Planning					
	a. Identify the users of the audit report and those responsible	All parties responsible for implementing the Construction of State Building based on contract agreement are clearly identified	A	C	R	
	b. Determination of the main points, objectives, and audit scope	The main points, objectives and audit scope for the implementation of contract agreement for the construction of State Building are clearly identified	A	C	R	
	c. Identification of criteria;	There is a list of applicable criteria in implementing the contract agreement for the construction of State Building and communicate it to the client	A	C	R	
	d. Understanding of the entity and its environment	The report of understanding results has informed internal and external factors that affect the entity	A	C	R	
	e. Understanding of internal control systems;	The report of understanding results of the Internal Control System has informed the level of effectiveness of the entity in an effort to comply with the criteria	A	C	R	
	f. Determination of materiality;	The report of materiality determination results has considered issues of compliance, public expectations, legislative oversight needs, the need for transparency and the use of large financing	A	C	R	
	g. Risk evaluation;	Risk assessment has informed each critical area and mapping of the HR responsible for handling it	A	C	R	
	h. Determination of picking test;	Conclusions of the results of the picking test represent the condition of the population	A	C	R	
	i. Preparation of strategies and audit plans	The strategy and audit plan are documented and updated during the audit process	A	C	R	
2.	Executing					
	a. Proof of acquisition and exposures:	Acquisition of all document details completed with minutes of request for information and minutes of observations from inspectors validated by authorized users and service providers (refers to implementation of contract agreement, Presidential Regulation No. 16/ 2018)		I	A/C	R
	b. Development of audit findings	The audit findings contain all elements of the findings, have substantive truths and have been reviewed in phases		I	A/C	R
	c. Obtaining response to audit findings	Obtaining responses from authorized parties (entities) over all audit findings submitted	A	C	C	R

No.	Audit Phase	Quality Objectives	Responsible (R), Accountable (A), Consult (C) and Informed (I)			
			PM	PT	KT	AT
		in an official written form equipped with supporting documents adequately				
3.	Reporting					
	a. Make an audit report	Completion of the audit report should be on time, complete, accurate, objective, convincing, clear and concise	A	C	R	
	b. Follow-up on Compliance Audit	Obtaining an action plan for the follow-up of the entity and reporting the results of follow-up monitoring	A	C	R	

implementation of contract agreement for the construction of State Building. In accordance with the agreed audit phases, the quality objectives obtained were also agreed upon by the experts as in table 1.

This paper presents a review of the literature regarding QMS to be implemented in a compliance audit. First, the auditor organization shall determine what will be done and who will be involved and being responsible. Second, the organization shall establish quality objectives at relevant processes needed for the quality management system (ISO 9001). The audit phase refers to the three basic verification phases are: planning, collecting the audit evidence; integration all the information and presentation the results (Nikulina, M.E. et al., 2017) and in accordance with the *Petunjuk Pelaksanaan Kepatuhan* (2018) that divide the audit phases into three phases, are: planning; executing; and reporting.

5 CONCLUSION

Each stage of the audit needs to set quality objectives and roles of each party in the audit team. The quality objectives were set by experts who are involved in formulating audit policies or technically involved in the audit. The purpose of developing a quality management system in this audit process is to prove to the client that the auditor's organization can properly control all quality factors, and ensure the suitability of the steps to meet the specified requirements.

This study has limitations due to the focus of research on compliance audits of construction contract agreement on government procurement by providers. Compliance audits assure the government that a business is following the rules and regulations of specific agreement and does not conflict with higher regulations. Future research can develop the research focus on the development of a quality

management system in audits of a construction contract agreement that indicate fraud. Thus, recommendations obtained from audit results can help the organization to achieve its objectives by taking preventive or anticipatory actions in minimizing fraud in the project. Systematic audits of risk management, control system, and management of entities can produce recommendations to the organization to increase its effectiveness.

ACKNOWLEDGEMENTS

The Authors would like to thank the Directorate for Research and Public Services (DRPM) Universitas Indonesia for all support.

REFERENCES

- Badan Pemeriksa Keuangan Republik Indonesia, 2015, Panduan Manajemen Pemeriksaan.
- Badan Pemeriksa Keuangan Republik Indonesia, 2017, Standar Pemeriksaan Keuangan Negara.
- Badan Pemeriksa Keuangan Republik Indonesia, 2018, Juklak Kepatuhan.
- Chou, D.C., 2015, Cloud computing risk and audit issues, 42, 137-142.
- Didkovskaya, O. et al., 2016, Construction audit as a modern instrument of investment and construction process management, MATEC Web of Conferences 86, 05007.
- Haya, D., & Cordery, C., 2018, The Value of Public Sector Audit: Literature and History. *Journal of Accounting Literature*, 40, 1-15.
- Jeppesen, K.K., 2017, The Role of Auditing in the Fight Against Corruption, *The British Accounting Review*.
- Mashwama, N. et al., 2017, An Assessment of the Critical Success Factor for the Reduction of Cost of Poor Quality in Construction Projects in Swaziland, 196, 447-453.

- Morrill, Cameron and Morril, Janet, 2003, Internal auditors and external audit: a transaction cost perspective. *Managerial auditing journal*, 18 (6/7), 490-504.
- Nikulina, M.E., Gorobtsov, D.N., Pendin, V.V., 2017, Engineering and geological audit in design and construction of linear transport facilities, 189,70-74.
- Priede, J., 2012, Implementation of Quality Management System ISO 9001 in the World and its Strategic Necessity. *Procedia - Social and Behavioral Sciences*, 58, 1466-1475.
- Elsevier, 2014, The Basics of IT Audit, Types of Audit, 83-103.
- Sarwoko, I., & Agoes, S., 2014, An Empirical Analysis of Auditor's Industry Specialization, Auditor's Independence and Audit Procedures on Audit Quality: Evidence from Indonesia. *Procedia - Social and Behavioral Sciences*, 164, 271-281.
- Zhao Z., Tao S., & Jiashan S., 2014, Analysis of Relationship between Quality Management System and Design Assurance System. *Procedia Engineering*, 80, 565- 572.

